

SBIR/STTR 101

Commercialization Ratings Clarification

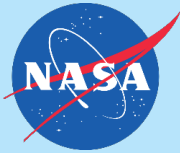
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INNOVATION | PARTNERSHIP | COMMERCIALIZATION

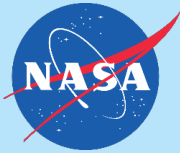
SMALL BUSINESS INNOVATION RESEARCH (SBIR) & SMALL BUSINESS TECHNOLOGY TRANSFER (STTR)

What is Commercialization?

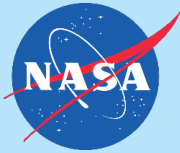


- Commercialization is "the process of developing products, processes, technologies, or services and the production and delivery (whether by the originating party or others) of the products, processes, technologies, or services for sale to or use by the Federal government or commercial markets"
- The law requires SBIR/STTR programs to consider commercial potential in making selections for SBIR/STTR awards.
- The SBA set a goal for the program to increase private-sector commercialization of innovations derived from Federal research and development (R&D) funding.

Why Commercialization?



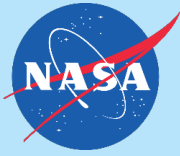
- Where does Commercialization fit in?
 - It typically takes 3 to 7 years for a new technology effort to make it into a NASA flight mission.
 - NASA is focused on technology investments that will lead to available technology when required for flight.
 - NASA wants companies to succeed and become sustainable sources of NASA technology and become part of our industry/technology community.
 - Commercialization of technology beyond NASA is a good proxy for sustainability of the potential flight technology.
- Commercialization can be achieved a number of ways:
 - Infusion into a NASA Program
 - Post Phase II funding from another Federal Agency
 - Post Phase II funding from a commercial enterprise in the form of sales or additional R&D



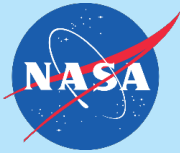
- Evaluation Criteria
 - NASA intends to select for award those proposals that offer the most advantageous research and development to stimulate technical innovation to the Government and the SBIR/STTR Program. NASA will give primary consideration to the scientific and technical merit and feasibility of the proposal and its benefit to NASA interests. Each proposal will be evaluated and scored on its own merits using the factors described below:
 1. Scientific/Technical Merit and Feasibility
 2. Experience, Qualifications and Facilities
 3. Effectiveness of the Proposed Work Plan
 4. Commercial Potential and Feasibility
 5. Price Reasonableness

- All acceptable Phase II SBIR and STTR proposals are reviewed by a committee of outside consultants familiar with NASA technologies and the external commercial markets.
- The purpose of the commercial review is two-fold:
 - Provide the proposing company with an assessment of their commercial plans, give advice for improvement and also how to recognize additional commercialization opportunities.
 - Provide NASA with an assessment of the ability of the proposing company to commercialize their technology outside of NASA and to become a sustainable provider to NASA.
- Starting with the current solicitation, the results of the commercial review will be worth 5% of the scoring factors for each proposal.

- Ability of a company to commercialize their technology is based on several factors:
 - Understanding of the internal and external market place
 - Market segmentation
 - Competitive landscapes and barriers to entry
 - Ability to demonstrate a viable plan to address and penetrate the market
 - Pro-forma revenues
 - Ability to carry out the commercialization plan
 - Capitalization
 - Staffing
 - Cash Flow and Balance Sheet statements
- A high commercial score means that:
 - A company has identified an addressable market for their technology; and
 - A company has specified a viable plan to address the market; and
 - A company has a capitalization plan and ability to carry out their commercialization plan.



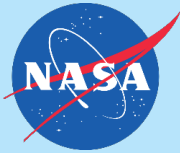
- SBIR proposals have shown an improvement in commercial reviews since commercial review feedback has been made available.
- To further incentivize commercialization, starting with the current solicitation, the results of the commercial review will be worth 5% of the scoring factors for each proposal.
- NASA will consider adjustments to the commercial score weighting in future solicitations.



- Commercialization reviews are based on the evaluation of Part 7 of the SBIR/STTR proposals.
- Elements of Part 7: Phase III Efforts, Commercialization and Business Planning
 1. Market Feasibility and Competition
 2. Commercialization Strategy and Relevance to the Offeror
 3. Key Management, Technical Personnel and Organizational Structure
 4. Production and Operations
 5. Financial Planning
 6. Intellectual Property

1. **Market Feasibility and Competition:** Describe

- (a) the target market(s) of the innovation and the associated product or service;
- (b) the competitive advantage(s) of the product or service;
- (c) key potential customers, including NASA mission programs and prime contractors;
- (d) projected market size (NASA, other Government and/or non-Government);
- (e) the projected time to market and estimated market share within five years from market-entry; and
- (f) anticipated competition from alternative technologies, products and services and/or competing domestic or foreign entities.

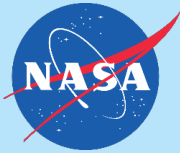


2. Commercialization Strategy and Relevance to the Offeror:

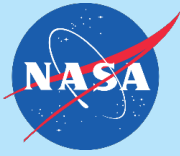
- Present the commercialization strategy for the innovation and associated product or service and its relationship to the SBC's business plans for the next five years.
- Infusion into NASA missions and projects is *an option* for commercialization strategy.

3. Key Management, Technical Personnel and Organizational Structure: Describe:

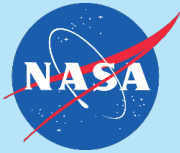
- (a) the skills and experiences of key management and technical personnel in technology commercialization;
- (b) current organizational structure; and
- (c) plans and timelines for obtaining expertise and personnel necessary for commercialization.



- 4. Production and Operations:** Describe product development to date as well as milestones and plans for reaching production level, including plans for obtaining necessary physical resources.
- 5. Financial Planning:**
 - Delineate private financial resources committed to the development and transition of the innovation into market-ready product or service.
 - Describe the projected financial requirements and the expected or committed capital and funding sources necessary to support the planned commercialization of the innovation.
 - Provide evidence of current financial condition (e.g., standard financial statements including a current cash flow statement).

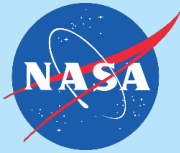


- 6. Intellectual Property:** Describe plans and current status of efforts to secure intellectual property rights (e.g., patents, copyrights, trade secrets) necessary to obtain investment, attain at least a temporally competitive advantage, and achieve planned commercialization.



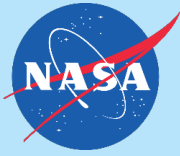
- **Commercialization Technical Assistance**

- In accordance with the Small Business Act (15 U.S.C. 632), NASA will authorize the recipient of a Phase II SBIR award to purchase technical assistance services through an outside vendor, such as access to a network of non-NASA scientists and engineers engaged in a wide range of technologies, or access to technical and business literature available through on-line data bases, for the purpose of assisting such concerns in:
 - Making better technical decisions concerning such projects.
 - Solving technical problems which arise during the conduct of such projects.
 - Minimizing technical risks associated with such projects.
 - Developing and commercializing new commercial products and processes resulting from such projects.
- Up to \$5,000/proposal available after Phase II award

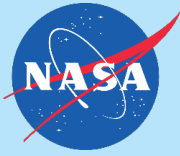


- **I-Corps**

- The NASA SBIR/STTR Program is partnering with the National Science Foundation (NSF) to offer the NSF Innovation Corps program (I-Corps TM).
 - I-Corps focuses on educating teams on how to translate technologies from the laboratory into the marketplace.
- Participation in I-Corps will require selected companies to conduct either 30 interviews (shortened version for the SBIR program) or 100 interviews (full version for the STTR program) to enable contractors to understand the commercial potential of their ideas.
- Selected companies will be awarded training grants, separate from their Phase I contract, that must be completed prior to the conclusion of Phase I contracts.
- The program is described further at <http://sbir.nasa.gov/content/I-Corps>.
- NASA awarded 11 grants to SBIR and STTR Phase I contractors through the FY17 solicitation.
 - The amount of funding is \$50,000 for the full I-Corps program for STTR firms, and up to \$35,000 for the shortened version for SBIR firms.



- The proposal process begins right now, not after the solicitation is released.
- Writing a winning a proposal is a long term process that involves:
 - Understanding the needs and interests of NASA
 - Interacting with the technical community
 - Help us write our subtopic descriptions by letting us know what you are capable of providing.
 - Find out how you can best be a benefit to NASA science and technical needs.
- Read the solicitation carefully
 - Do not assume it is the same as last year.
 - Reread it again, your competition did.
- Provide all of the required information, including Part 7 – Commercialization for Phase II proposals.
- Explain (early and concisely) how your effort will benefit NASA interests.
- You never finish writing a proposal, you just run out of time.



The End

THANK YOU FOR YOUR PARTICIPATION!

NOTE: *This presentation will be accessible through the Industry Day website.*